CLAIMS

What is claimed is:

1. An apparatus for abrading tissue, comprising:

a bearing tube having a distal end and a proximal end;

a suction port formed distally in a sidewall of the bearing tube;

an inner tube disposed within the bearing tube and having a distal opening, the distal opening being located proximal of the suction port in the sidewall of the bearing tube;

a solid transition region extending distally from the inner tube and disposed distal to the distal opening; and

an abrading element disposed distally and supported on the solid transition region.

2. The apparatus of claim 1, wherein the solid transition region has an outer diameter smaller than an inner diameter of bearing tube to provide a clearance between the solid transition region and the bearing tube.

3. The apparatus of claim 2, wherein the distal opening is arranged operationally to be in constant fluid communication with the clearance.

4. The apparatus of claim 1, further comprising a distal bearing sleeve disposed on the solid transition region extending distally from the inner tube.

5. The apparatus of claim 4, further comprising a proximal bearing sleeve disposed on the inner tube.

6. The apparatus of claim 1, wherein the solid transition region extending distally from the inner tube is attached to a support disposed adjacent the distal opening.

7. The apparatus of claim 1, wherein an outer diameter of the inner tube is uniform.

8. The apparatus of claim 1, wherein the inner diameter of the inner tube is uniform.

9. The apparatus of claim 1, further comprising a drive assembly attached to the proximal end of the inner tube.

10. The apparatus of claim 9, wherein the drive assembly includes suction ports extending radially, the suction ports connecting to a lumen of the inner tube.

11. The apparatus of claim 1, wherein the abrading element has an outer diameter substantially equal to an outer diameter of the bearing tube.

12. The apparatus of claim 1, further comprising a sheath tube in which the bearing tube is disposed, the sheath tube including a hooded sheath formed on a distal end and at least partially surrounding the abrading element.

13. A method of abrading tissue, comprising:

proximating tissue to be abraded with an abrading instrument, the abrading instrument including:

a bearing tube having a distal end and a proximal end, and a suction port formed distally in a sidewall of the bearing tube;

an inner tube disposed within the bearing tube and having a distal opening, the distal opening being located proximal to the suction port in the sidewall of the bearing tube;

a solid transition region extending distally from the inner tube and disposed distal to the distal opening; and

an abrading element disposed distally on the solid transition region;

abrading the tissue with the abrading element; and

aspirating debris generating by abrading the tissue through the suction port and into the inner tube.

14. The method of claim 13, wherein the tissue to be abraded is in a knee.

15. The method of claim 13, wherein the abrading element is rotated.